

Artificial Intelligence for Earth System Science Summer School 2020 Agenda

Monday

June 22, 2020

Time (MDT)	Topic	Speaker
9:00 AM	Introduction	
9:10 AM	Building a Strong Foundation: Defining ML Problems and Preprocessing	David John Gagne - NCAR
10:10 AM	BREAK	
10:20 AM	Machine Learning Fundamentals	Dorit Hammerling - Colorado School of Mines
11:20 AM	BREAK	
11:30 AM	Decision Trees and Ensembles	Ryan Lagerquist - University of Oklahoma
12:30 PM	LUNCH	
1:30 PM	Panel Discussion	
2:00 PM	Hackathon Kickoff Presentation	David John Gagne - NCAR
2:30 PM	Hackathon Starts	
5:00 PM	Online Q & A	
6:00 PM	Team Submission Deadline	

Tuesday

June 23, 2020

Time (MDT)	Topic	Speaker
9:00 AM	Convolutional Neural Networks	Karthik Kashinath - Lawrence Berkeley National Laboratory
10:00 AM	BREAK	
10:10 AM	Recurrent Neural Networks and LSTMs	Chaopeng Shen - Penn State University
11:10 AM	BREAK	
11:20 AM	Deep Learning Architectures	David Hall - NVIDIA
12:20 PM	LUNCH	
1:20 PM	Panel Discussion	
1:50 PM	Hackathon Update	
2:00 PM	Hackathon Starts	
5:00 PM	Online Q & A	
6:00 PM	Team Submission Deadline	

Wednesday

June 24, 2020

Time (MDT)	Topic	Speaker
9:00 AM	ML in Weather Forecasting Systems	Sue Ellen Haupt - NCAR
10:00 AM	BREAK	
10:10 AM	ML for Segmentation of Atmospheric Phenomena	Jebb Stewart - NOAA ESRL
11:10 AM	BREAK	
11:20 AM	ML Emulators in Land Surface Models	Katie Dagon - NCAR
12:20 PM	LUNCH	
1:20 PM	Panel Discussion	
1:50 PM	Hackathon Update	
2:00 PM	Hackathon Starts	
5:00 PM	Online Q & A	
6:00 PM	Team Submission Deadline	

Thursday

June 25, 2020

Time (MDT)	Topic	Speaker
9:00 AM	Peering Inside the Black Box of Machine Learning for Earth Science - Part 1	Amy McGovern - University of Oklahoma
10:00 AM	BREAK	
10:10 AM	Peering Inside the Black Box of Machine Learning for Earth Science - Part 2	Imme Ebert-Uphoff - Colorado State University/CIRA
11:10 AM	BREAK	
11:20 AM	ML Parameterization	Mike Pritchard - UC Irvine
12:20 PM	LUNCH	
1:20 PM	Panel Discussion	
1:50 PM	Hackathon Update	
2:00 PM	Hackathon Starts	
5:00 PM	Online Q & A	
6:00 PM	Team Submission Deadline	

Friday

June 26, 2020

Time (MDT)	Topic	Speaker
9:00 AM	Generative Models	Mustafa Mustafa - Lawrence Berkeley National Laboratory
10:00 AM	BREAK	
10:10 AM	Physics-Guided ML	Pierre Gentine - Columbia University
11:10 AM	BREAK	
11:20 AM	Deep Unsupervised Learning for Climate Applications	Claire Monteleoni - University of Colorado Boulder
12:20 PM	LUNCH	
1:20 PM	Panel Discussion	
1:50 PM	Hackathon Presentations	
3:30 PM	BREAK	
3:40 PM	Hackathon Presentations Continue	
5:00 PM	Summer School Ends	